



PHOSPHINE

Agent Overview:

Phosphine is a colorless, flammable, and explosive gas at ambient temperature. It has the odor of garlic or decaying fish and is slightly soluble in water. Small amounts occur from the natural breakdown of organic matter. Phosphine is used as an insecticide to fumigate grains, animal feed and stored tobacco leaves. It is also used in the semiconductor and plastics industries, and to produce a flame retardant. Inhalation exposure results in headaches, dizziness, fatigue, drowsiness, burning substernal pain, cough, dyspnea, chest tightness, pulmonary irritation, pulmonary edema, tremors, post-recovery convulsions, numbness and paraesthesia, and gastrointestinal effects. Chronic exposure may inflame the nasal cavity and throat; and cause weakness, dizziness, nausea; cardio-respiratory, gastrointestinal and central nervous system symptoms; and jaundice, liver effects, and increased bone density.

Lab Specimen Submittal:

Authorization by Dr. Jane Getchell, Director DPHL; Christina Pleasanton, Deputy Director DPHL; or Tara Lydick, Chemical Terrorism Coordinator.

Type of Specimens

Urine: 25mL-50mL screw-cap container

Necessary for Testing:

Whole blood:

- Three, 5 or 7 mL purple-top (EDTA) tubes (vacuum fill only) AND
- One, 5 or 7 mL gray-top or green-top (vacuum fill only) AND
- Two empty urine cups and two empty blood tubes for each lot # submitted.

Packaging Instructions:

Urine: freeze specimen upon collection and ship on dry ice; label specimens and package individually; wrap with absorbent material.

Whole blood: place filled tubes in a shipping rack for stability, wrap the tubes in absorbent material, and secure with tape. Place the packaged tubes in a secondary unbreakable container. Specimens may be shipped cold but *must not* be frozen.

All: wrap sample containers and layers with tamper-proof, waterproof forensic evidence tape initialed by collector, being careful not to cover the sample labels. Ship to DPHL as Biological Substance, Category B (Packing Instruction 650).

Receiving Specimens at DPHL:

Authorized specimens are received at the lab's rear (loading dock) entrance. Submitters must present ID complete proper forms.

Handling of Specimens:

Follow chain of custody procedures. Freeze urine specimens.

Reporting Results:

Reference laboratory will notify DPHL as soon as possible. The Potential Exposure Call Log and Information form will provide information for notification of testing results outside of the DPHL.

Contact Information:

Jane Getchell, DrPH, Director DPHL, 302-223-1520 (24/7 coverage)

24/7 Emergency Contact Number: 1-888-295-5156

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